

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/21/2007

Reviewed on 11/21/2007

1 Identification of substance

- **Product details**
- **Trade name:** Curil K2
- **Article number:** 532.215/534.501/534.714/036.129
- **Application of the substance / the preparation** Sealing compound

2 Hazards identification

- **Hazard description:**



F Highly flammable

- **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Highly flammable.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 1

- **WHMIS-ratings (scale 0 - 4)**



HEALTH 0 Health = 0

FIRE 3 Fire = 3

REACTIVITY 1 Reactivity = 1

3 Composition/Data on components

- **Chemical characterization**

- **Description:**

Castor oil derivative (modified with phenolic resin) solved in Ethanol.

- **Dangerous components:**

64-17-5 ethanol

F; R 11 25-50%

4 First aid measures

- **General information:**

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

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5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the material, its products of combustion or resulting gases:**
During heating or in case of fire poisonous gases are produced.
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Pick up mechanically.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Dispose of the collected material according to regulations.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Use solvent-proof equipment.
Avoid contact with skin or eyes.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Fumes can combine with air to form an explosive mixture.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from heat and direct sunlight.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

64-17-5 ethanol

PEL	1900 mg/m ³ , 1000 ppm
REL	1900 mg/m ³ , 1000 ppm
TLV	1880 mg/m ³ , 1000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Immediately remove all soiled and contaminated clothing.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Do not inhale gases / fumes / aerosols.
- **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation.
Short term filter device:
Filter A
- **Protection of hands:** Solvent resistant gloves

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· **Material of gloves**

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.5 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **General Information**

Form:	Viscous
Color:	Yellowbrown
Odor:	Like alcohol

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 78°C (172°F)

· **Flash point:** 17°C (63°F)

· **Ignition temperature:** 425°C (797°F) (DIN 51794)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower: 3.5 Vol %

Upper: 15.0 Vol %

· **Vapor pressure at 20°C (68°F):** 58 mbar (prEN 13016-1)

· **Density at 20°C (68°F):** 1.04 g/cm³ (DIN 51757)

· **Solubility in / Miscibility with**

Water: Partly soluble.

· **Viscosity:**

Dynamic at 20°C (68°F): 1200 - 1800 mPas

Flow time at 20°C (68°F): >100 s (4 mm)

· **Solvent separation test** <3 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Dangerous reactions**

Reacts with alkaline metals.

Reacts with earth alkaline metals.

Reacts with strong oxidizing agents.

· **Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

Irritant gases/vapors

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

64-17-5 ethanol

Oral	LD50	3450 mg/kg (mouse) 7060 mg/kg (rat)
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Dermal	LD50	4070 mg/kg (rabbit)
Inhalative	LC50/10h	37.68 mg/l (rat)
	LC50/4 h	20000 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

12 Ecological information

- **Ecotoxicological effects:**

- **Acquatic toxicity:**

64-17-5 ethanol

EC50/48h	9268 mg/l (water-fly)
LC 50	8150 mg/l (leuciscus idus)
LC50/96h	14200 mg/l (Pimephales promelas)

- **General notes:**

At present there are no ecotoxicological assessments.
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**

- **Recommendation:**

Take to special waste combustion plant.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Regulations of local authorities have to be followed.

- **Uncleaned packagings:**

- **Recommendation:**

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
Non contaminated packagings can be treated like household garbage.

14 Transport information

- **DOT regulations:**



- **Hazard class:** 3
- **Identification number:** UN1170
- **Packing group:** III
- **Proper shipping name (technical name):** ETHANOL, SOLUTION
- **Label:** 3

- **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 3 (F1) Flammable liquids
- **Danger code (Kemler):** 33
- **UN-Number:** 1170

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· Packaging group: III

· Maritime transport IMDG:



· IMDG Class: 3
 · UN Number: 1170
 · Label: 3
 · Packaging group: III
 · EMS Number: F-E,S-D
 · Marine pollutant: No
 · Proper shipping name: ETHANOL, SOLUTION

· Air transport ICAO-TI and IATA-DGR:



· ICAO/IATA Class: 3
 · UN/ID Number: 1170
 · Label: 3
 · Packaging group: III
 · Proper shipping name: ETHANOL, SOLUTION

15 Regulations

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

78-93-3 butanone

· TSCA (Toxic Substances Control Act):

8001-79-4 Castor oil

64-17-5 ethanol

8002-74-2 Paraffin waxes and Hydrocarbon waxes

7732-18-5 water, distilled, conductivity or of similar purity

7631-86-9 silicon dioxide, chemically prepared

78-93-3 butanone

98-54-4 4-tert-butylphenol

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

64-17-5 ethanol

· Canadian Ingredient disclosure list

· Limit 0,1%:

ethanol

· Limit 1%:

Castor oil

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· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

78-93-3	butanone	D
1330-20-7	xylene, mixed isomers, pure	D

· **IARC (International Agency for Research on Cancer)**

7631-86-9	silicon dioxide, chemically prepared	3
1330-20-7	xylene, mixed isomers, pure	3
50-00-0	formaldehyde	2A

· **NTP (National Toxicology Program)**

50-00-0	formaldehyde	R
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· **TLV (Threshold Limit Value established by ACGIH)**

64-17-5	ethanol	A4
1330-20-7	xylene, mixed isomers, pure	A4

· **MAK (German Maximum Workplace Concentration)**

64-17-5	ethanol	5
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

F Highly flammable

· **Risk phrases:**

Highly flammable.

· **Safety phrases:**

Keep out of the reach of children.

Keep container tightly closed.

Keep away from sources of ignition - No smoking.

Use only in well-ventilated areas.

Dispose of this material and its container at hazardous or special waste collection point

· **National regulations:**· **Technical instructions (air):**

Class	Share in %
NK	25-50

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** 2SEW· **Contact:** Mr. Anhorn· *** Data compared to the previous version altered.**